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OM protein - protein search, using sw model

Run on: August 25, 2004, 12:58:44 ; Search time 128 Seconds

(without alignments)

1305.152 Million cell updates/sec

Title: US-09-530-233-2

Perfect score: 2851

Sequence: 1 MRTSGDPEEARQQPSDIRVF.....CAVTKTSLASHRTCYLVSQL 531

Scoring table: BLOSSM62

Gapext 0.5

Searched: 1297172 seqs, 314612898 residues

Total number of hits satisfying chosen parameters: 1297172

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-Processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published_Applications_AA:*

1: /cgn2_6/ptodata/2/pubpaas/US07_PUBCOMB.pep:*

2: /cgn2_6/ptodata/2/pubpaas/PCT_NEW_PUB.PEP:*

3: /cgn2_6/ptodata/2/pubpaas/US06_NEW_PUB.PEP:*

4: /cgn2_6/ptodata/2/pubpaas/PUBCOMB.pep:*

5: /cgn2_6/ptodata/2/pubpaas/US07_NEW_PUB.PEP:*

6: /cgn2_6/ptodata/2/pubpaas/PCTNS_PUBCOMB.pep:*

7: /cgn2_6/ptodata/2/pubpaas/US08_NEW_PUB.PEP:*

8: /cgn2_6/ptodata/2/pubpaas/US05_PUBCOMB.pep:*

9: /cgn2_6/ptodata/2/pubpaas/US09_1_PUBCOMB.pep:*

10: /cgn2_6/ptodata/2/pubpaas/US09_1_PUBCOMB.pep:*

11: /cgn2_6/ptodata/2/pubpaas/US09C_PUBCOMB.pep:*

12: /cgn2_6/ptodata/2/pubpaas/US09_NEW_PUB.PEP:*

13: /cgn2_6/ptodata/2/pubpaas/US10_PUBCOMB.pep:*

14: /cgn2_6/ptodata/2/pubpaas/US10C_PUBCOMB.pep:*

15: /cgn2_6/ptodata/2/pubpaas/US10C_PUBCOMB.pep:*

16: /cgn2_6/ptodata/2/pubpaas/US10C_PUBCOMB.pep:*

17: /cgn2_6/ptodata/2/pubpaas/US10C_PUBCOMB.pep:*

18: /cgn2_6/ptodata/2/pubpaas/US60_PUBCOMB.pep:*

Pred. NO. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Sequence 4, Appli

Sequence 5, Appli

Sequence 6, Appli

Sequence 2, Appli

Sequence 4, Appli

Sequence 8, Appli

Sequence 6, Appli

Sequence 14, Appli

Sequence 2, Appli

Sequence 13, Appli

Sequence 104, Appli

Sequence 8, Appli

Sequence 290, Appli

Sequence 2, Appli

ALIGNMENTS

RESULT 1

US-10-258-073-4

Sequence 4, Application US/10258073

Publication No. US20030219858A1

GENERAL INFORMATION:

APPLICANT: Babinski, Kazimierz

APPLICANT: Segeda, Philippe

TITLE OF INVENTION: A NOVEL HETEROMULTIMERIC ION CHANNEL RECEPTOR AND USES

FILE REFERENCE: 0103_001-W-US

CURRENT APPLICATION NUMBER: US/10/258,073

PRIOR APPLICATION NUMBER: PCT/CA01/00561

NUMBER OF SEQ ID NOS: 28

SOFTWARE: PatentIn Ver. 2.1

SEQ ID NO: 4

LENGTH: 531

TYPE: PRT

ORGANISM: HUMAN ASIC3

US-10-258-073-4

Query Match

Best Local Similarity 100.0%

Pred. No. 6, 9e-254;

Matches 533; Conservative 0;

Indels 0;

Gaps 0;

Score 2851; Length 531;

RESULT 2
 US-10-345-680-56
 ; Sequence 56, Application US/10345680
 ; Publication No. US200301483941
 ; GENERAL INFORMATION:
 ; - APPLICANT: Millennium Pharmaceuticals, Inc.
 ; - APPLICANT: Venkateswarlu, Karicheti
 ; - APPLICANT: Silos-Santiago, Immaculada
 ; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR TREATING
 ; UROLOGICAL DISORDERS USING 1435, 559, 34021, 44099, 25278,
 ; 641, 260, 55089, 21407, 403, 46656, 65553, 302, 323,
 ; 645, 260, 5503, 13237, 1301, 18926, 31, 2058 OR 6351 MOLECULES.
 ; CURRENT APPLICATION NUMBER: US710/345,680
 ; CURRENT FILING DATE: 2003-01-16
 ; PRIOR APPLICATION NUMBER: US 60/349,511
 ; PRIOR FILING DATE: 2002-01-18
 ; PRIOR APPLICATION NUMBER: US 60/350,500
 ; PRIOR FILING DATE: 2002-02-18
 ; PRIOR APPLICATION NUMBER: US 60/365,041
 ; PRIOR FILING DATE: 2002-03-15
 ; PRIOR APPLICATION NUMBER: US 60/374,963
 ; PRIOR FILING DATE: 2002-04-19
 ; PRIOR APPLICATION NUMBER: US 60/403,468
 ; PRIOR FILING DATE: 2002-08-14
 ; PRIOR APPLICATION NUMBER: US 60/414,262
 ; PRIOR FILING DATE: 2002-09-27
 ; PRIOR APPLICATION NUMBER: US 60/419,986
 ; PRIOR FILING DATE: 2002-10-21
 ; PRIOR APPLICATION NUMBER: US 60/423,809
 ; PRIOR FILING DATE: 2002-11-05
 ; PRIOR FILING DATE: 2002-11-26
 ; NUMBER OF SEQ ID NOS: 66
 ; SOFTWARE: FastSEQ for Windows Version 4.0
 ; SEQ ID NO: 56
 ; LENGTH: 531
 ; TYPE: PRT
 ; ORGANISM: Homo Sapiens
 ; US-10-345-680-56

Query Match 99.4%; Score 2833; DB 14; Length 531;
 Best Local Similarity 99.2%; Pred. No. 3.2e-252; Indels 0; Gaps 0;
 Matches 527; Conservative 2; Mismatches 2; Length 531;
 SEQ ID NO: 1 MKPTSSPEARRPDIRFASNCNSMRGIGHVFPGSLSLRRGMWAAAVVLSVATFVQV 60

RESULT 3
 US-10-345-680-44
 ; Sequence 44, Application US/10366288
 ; Publication No. US20030216288A1
 ; GENERAL INFORMATION:
 ; - APPLICANT: Powell, Douglas
 ; - APPLICANT: Weich, Nadine S
 ; - APPLICANT: Weich, Nadine S
 ; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR TREATING
 ; AIDS AND HIV-RELATED DISORDERS USING 1414, 1481, 1553,
 ; 14021, 1720, 1683, 1552, 1682, 1675, 12825, 9952, 5816,
 ; 10002, 1611, 14324, 126, 270, 312, 167, 326, 18926,
 ; CURRENT APPLICATION NUMBER: US10/366,288
 ; CURRENT FILING DATE: 2003-02-13
 ; PRIOR APPLICATION NUMBER: 60/357,391
 ; PRIOR FILING DATE: 2002-02-15
 ; PRIOR APPLICATION NUMBER: 60/380,249
 ; PRIOR FILING DATE: 2002-05-13
 ; PRIOR APPLICATION NUMBER: 60/391,306
 ; PRIOR FILING DATE: 2002-06-15
 ; PRIOR APPLICATION NUMBER: 60/406,297
 ; PRIOR FILING DATE: 2002-08-27
 ; PRIOR APPLICATION NUMBER: 60/412,007
 ; PRIOR FILING DATE: 2002-09-19
 ; PRIOR APPLICATION NUMBER: 60/417,508
 ; PRIOR FILING DATE: 2002-10-10
 ; PRIOR APPLICATION NUMBER: 60/432,318
 ; PRIOR FILING DATE: 2002-12-10
 ; NUMBER OF SEQ ID NOS: 52
 ; SOFTWARE: FastSEQ for Windows Version 4.0
 ; SEQ ID NO: 44
 ; LENGTH: 531
 ; TYPE: PRT
 ; ORGANISM: Homo Sapiens
 ; US-10-366-288-44

Query Match 99.4%; Score 2833; DB 15; Length 531;

Best Local Similarity 99.2% ; Pred. No. 3.2e-252;	Conservative 2;	Mismatches 2;	Indels 0;	Gaps 0;	Qy	61 AERYYYREFHHOTALDERESEHRLVPAVTLCNINPLRRSLTPNDLHWAGSALLGLDPA 120
Oy 1 MKPTSGPPEARRPSDIRVFAASNCMHEGLGHVFGPSGSLSLRGMWAAAAYVLSVATELYQV 60	Db 1 MKPTSGPPEARRPSDIRVFAASNCMHEGLGHVFGPSGSLSLRGMWAAAAYVLSVATELYQV 60	Db 61 AERYYYREFHHOTALDERESEHRLVPAVTLCNINPLRRSLTPNDLHWAGSALLGLDPA 120	Qy 61 AERYYYREFHHOTALDERESEHRLVPAVTLCNINPLRRSLTPNDLHWAGSALLGLDPA 120			
Db 1 MKPTSGPPEARRPSDIRVFAASNCMHEGLGHVFGPSGSLSLRGMWAAAAYVLSVATELYQV 60	Qy 121 EHAAFRLAIGRPPAPGMPSPTFDQAQLYARAGHSIDDMILDCRFRGQPCGPENFTTIF 180	Db 121 EHAAFRLAIGRPPAPGMPSPTFDQAQLYARAGHSIDDMILDCRFRGQPCGPENFTTIF 180	Qy 121 EHAAFRLAIGRPPAPGMPSPTFDQAQLYARAGHSIDDMILDCRFRGQPCGPENFTTIF 180			
Qy 61 AERYYYREFHHOTALDERESEHRLVPAVTLCNINPLRRSLTPNDLHWAGSALLGLDPA 120	Db 61 AERYYYREFHHOTALDERESEHRLVPAVTLCNINPLRRSLTPNDLHWAGSALLGLDPA 120	Qy 61 AERYYYREFHHOTALDERESEHRLVPAVTLCNINPLRRSLTPNDLHWAGSALLGLDPA 120	Db 61 AERYYYREFHHOTALDERESEHRLVPAVTLCNINPLRRSLTPNDLHWAGSALLGLDPA 120			
Db 181 TRMGCYCTFNSGDAEELTTRGMCNGLDQEBELDQVNRNEEPEFVGIRVQ 240	Qy 121 EHAAFRLAIGRPPAPGMPESPTDQAQLYARAGHSIDDMILDCRFRGQPCGPENFTTIF 180	Db 181 TRMGCYCTFNSGDAEELTTRGMCNGLDQEBELDQVNRNEEPEFVGIRVQ 240	Qy 121 EHAAFRLAIGRPPAPGMPESPTDQAQLYARAGHSIDDMILDCRFRGQPCGPENFTTIF 180			
Db 181 TRMGCYCTFNSGDAEELTTRGMCNGLDQEBELDQVNRNEEPEFVGIRVQ 240	Qy 121 EHAAFRLAIGRPPAPGMPESPTDQAQLYARAGHSIDDMILDCRFRGQPCGPENFTTIF 180	Db 181 TRMGCYCTFNSGDAEELTTRGMCNGLDQEBELDQVNRNEEPEFVGIRVQ 240	Qy 121 EHAAFRLAIGRPPAPGMPESPTDQAQLYARAGHSIDDMILDCRFRGQPCGPENFTTIF 180			
Qy 181 TRMGCYCTFNSGDAEELTTRGMCNGLDQEBELDQVNRNEEPEFVGIRVQ 240	Db 181 TRMGCYCTFNSGDAEELTTRGMCNGLDQEBELDQVNRNEEPEFVGIRVQ 240	Qy 181 TRMGCYCTFNSGDAEELTTRGMCNGLDQEBELDQVNRNEEPEFVGIRVQ 240	Db 181 TRMGCYCTFNSGDAEELTTRGMCNGLDQEBELDQVNRNEEPEFVGIRVQ 240			
Db 241 IHSQEEPPSPDQGLGVSPYQTVFSCQQQQLSFLPPWGDCSSAISLPNVEPEPSPDPLG 300	Qy 241 IHSQEEPPSPDQGLGVSPYQTVFSCQQQQLSFLPPWGDCSSAISLPNVEPEPSPDPLG 300	Db 241 IHSQEEPPSPDQGLGVSPYQTVFSCQQQQLSFLPPWGDCSSAISLPNVEPEPSPDPLG 300	Qy 241 IHSQEEPPSPDQGLGVSPYQTVFSCQQQQLSFLPPWGDCSSAISLPNVEPEPSPDPLG 300			
Db 301 SPSPSPSPPTYLMGRCACTRYARKCCRMVYMPGIVPVCSPOQYKNCAPDAILR 360	Qy 301 SPSPSPSPPTYLMGRCACTRYARKCCRMVYMPGIVPVCSPOQYKNCAPDAILR 360	Db 301 SPSPSPSPPTYLMGRCACTRYARKCCRMVYMPGIVPVCSPOQYKNCAPDAILR 360	Qy 301 SPSPSPSPPTYLMGRCACTRYARKCCRMVYMPGIVPVCSPOQYKNCAPDAILR 360			
Db 361 KDSCACNPACSTRAYAKELSMYRIPSPAAAFPLARLNRSEAYIAENVLADIFFALNY 420	Qy 361 KDSCACNPACSTRAYAKELSMYRIPSPAAAFPLARLNRSEAYIAENVLADIFFALNY 420	Db 361 KDSCACNPACSTRAYAKELSMYRIPSPAAAFPLARLNRSEAYIAENVLADIFFALNY 420	Qy 361 KDSCACNPACSTRAYAKELSMYRIPSPAAAFPLARLNRSEAYIAENVLADIFFALNY 420			
Db 421 ETVEQKAYEMSELQDGGMGLFEGASLITLISLDYCEVRDKVLGYFNRQHSQR 480	Qy 421 ETVEQKAYEMSELQDGGMGLFEGASLITLISLDYCEVRDKVLGYFNRQHSQR 480	Db 421 ETVEQKAYEMSELQDGGMGLFEGASLITLISLDYCEVRDKVLGYFNRQHSQR 480	Qy 421 ETVEQKAYEMSELQDGGMGLFEGASLITLISLDYCEVRDKVLGYFNRQHSQR 480			
Db 481 HSSTNLQEGLGSHRTQVPHLSLGRPTTCAVTKTILSASHRTCYLVQL 531	Qy 481 HSSTNLQEGLGSHRTQVPHLSLGRPTTCAVTKTILSASHRTCYLVQL 531	Db 481 HSSTNLQEGLGSHRTQVPHLSLGRPTTCAVTKTILSASHRTCYLVQL 531	Qy 481 HSSTNLQEGLGSHRTQVPHLSLGRPTTCAVTKTILSASHRTCYLVQL 531			
Db 481 HSSTNLQEGLGSHRTQVPHLSLGRPTTCAVTKTILSASHRTCYLVQL 531	Qy 541 AVCV 544	Db 481 HSSTNLQEGLGSHRTQVPHLSLGRPTTCAVTKTILSASHRTCYLVQL 531	Qy 541 AVCV 544			
RESULT 5		RESULT 5	RESULT 5			
US-09-983-204-2		US-09-983-204-2	US-09-983-204-2			
Sequence 2, Application US/09983204		Sequence 2, Application US/09983204	Sequence 2, Application US/09983204			
Patent No. US200201730001		Patent No. US200201730001	Patent No. US200201730001			
GENERAL INFORMATION:		GENERAL INFORMATION:	GENERAL INFORMATION:			
APPLICANT: REINARD, STEPHANE		APPLICANT: REINARD, STEPHANE	APPLICANT: REINARD, STEPHANE			
APPLICANT: BESNARD, FRANCOIS		APPLICANT: BESNARD, FRANCOIS	APPLICANT: BESNARD, FRANCOIS			
APPLICANT: GRAHAM, DAVID		APPLICANT: GRAHAM, DAVID	APPLICANT: GRAHAM, DAVID			
APPLICANT: BESNARD, FRANCOIS		APPLICANT: BESNARD, FRANCOIS	APPLICANT: BESNARD, FRANCOIS			
FILE REFERENCE: 07586.0010		FILE REFERENCE: 07586.0010	FILE REFERENCE: 07586.0010			
FILE REFERENCE: 07586.0010		FILE REFERENCE: 07586.0010	FILE REFERENCE: 07586.0010			
TITLE OF INVENTION: SODIUM CHANNEL RECEPTOR		TITLE OF INVENTION: SODIUM CHANNEL RECEPTOR	TITLE OF INVENTION: SODIUM CHANNEL RECEPTOR			
CURRENT APPLICATION NUMBER: US/09/983,204		CURRENT APPLICATION NUMBER: US/09/983,204	CURRENT APPLICATION NUMBER: US/09/983,204			
PRIOR APPLICATION NUMBER: 09/142,666		PRIOR APPLICATION NUMBER: 09/142,666	PRIOR APPLICATION NUMBER: 09/142,666			
CURRENT FILING DATE: 2001-10-23		CURRENT FILING DATE: 2001-10-23	CURRENT FILING DATE: 2001-10-23			
PRIOR FILING DATE: 1998-02-22		PRIOR FILING DATE: 1998-02-22	PRIOR FILING DATE: 1998-02-22			
PRIOR APPLICATION NUMBER: PCT/EP98/02884		PRIOR APPLICATION NUMBER: PCT/EP98/02884	PRIOR APPLICATION NUMBER: PCT/EP98/02884			
PRIOR FILING DATE: 1998-05-15		PRIOR FILING DATE: 1998-05-15	PRIOR FILING DATE: 1998-05-15			
PRIOR APPLICATION NUMBER: 97401196.7		PRIOR APPLICATION NUMBER: 97401196.7	PRIOR APPLICATION NUMBER: 97401196.7			
PRIOR FILING DATE: 1997-05-30		PRIOR FILING DATE: 1997-05-30	PRIOR FILING DATE: 1997-05-30			
NUMBER OF SEQ ID NOS: 19		NUMBER OF SEQ ID NOS: 19	NUMBER OF SEQ ID NOS: 19			
SOFTWARE: PatentIn Ver. 2.0		SOFTWARE: PatentIn Ver. 2.0	SOFTWARE: PatentIn Ver. 2.0			
SEQ ID NO: 6		SEQ ID NO: 6	SEQ ID NO: 6			
LENGTH: 549		LENGTH: 549	LENGTH: 549			
TYPE: PRT		TYPE: PRT	TYPE: PRT			
ORGANISM: Homo sapiens		ORGANISM: Homo sapiens	ORGANISM: Homo sapiens			
US-09-983-204-6		US-09-983-204-6	US-09-983-204-6			
Query Match 94.9% ; Score 2706; DB 9; Length 549;		Query Match 94.9% ; Score 2706; DB 9; Length 549;	Query Match 94.9% ; Score 2706; DB 9; Length 549;			
Best Local Similarity 93.9% ; Pred. No. 1.7e-248;		Best Local Similarity 93.9% ; Pred. No. 1.7e-248;	Best Local Similarity 93.9% ; Pred. No. 1.7e-248;			
Matches 511; Conservative 3;		Matches 511; Conservative 3;	Matches 511; Conservative 3;			
Mismatches 14;		Mismatches 14;	Mismatches 14;			
Indels 16; Gaps 2;		Indels 16; Gaps 2;	Indels 16; Gaps 2;			
Qy 1 MKPTSGPPEARRPSDIRVFAASNCMHEGLGHVFGPSGSLSLRGMWAAAAYVLSVATELYQV 60		Qy 1 MKPTSGPPEARRPSDIRVFAASNCMHEGLGHVFGPSGSLSLRGMWAAAAYVLSVATELYQV 60	Qy 1 MKPTSGPPEARRPSDIRVFAASNCMHEGLGHVFGPSGSLSLRGMWAAAAYVLSVATELYQV 60			
Db 1 MKPTSGPPEARRPSDIRVFAASNCMHEGLGHVFGPSGSLSLRGMWAAAAYVLSVATELYQV 60		Db 1 MKPTSGPPEARRPSDIRVFAASNCMHEGLGHVFGPSGSLSLRGMWAAAAYVLSVATELYQV 60	Db 1 MKPTSGPPEARRPSDIRVFAASNCMHEGLGHVFGPSGSLSLRGMWAAAAYVLSVATELYQV 60			
Qy 61 AERYYYREFHHOTALDERESEHRLVPAVTLCNINPLRRSLTPNDLHWAGSALLGLDPA 120		Qy 61 AERYYYREFHHOTALDERESEHRLVPAVTLCNINPLRRSLTPNDLHWAGSALLGLDPA 120	Qy 61 AERYYYREFHHOTALDERESEHRLVPAVTLCNINPLRRSLTPNDLHWAGSALLGLDPA 120			

Db 61 AERYYREPHHQALDERESEHRLIFPAVLNCINPLRSRLTPNDLHWASALLGLDP 120
 Qy 121 BHAFLRAAGRPPAPPGFPSPFDMAQYARAGHSDDMLDCRFRGQPCPENFTIF 180
 Db 121 BHAFLRAAGRPPAPPGFPSPFDMAQYARAGHSDDMLDCRFRGQPCPENFTIF 180
 Qy 181 TRMGCYTNSGDAELTTTGMGNDLMDYQEEYLPPWNEEPPFEVIRQV 240
 Db 181 TRMGCYTNSGDAELTTTGMGNDLMDYQEEYLPPWNEEPPFEVIRQV 240
 Qy 241 IHSQEPPTIDOLGLGVSGYCTFVSCQQQLSFLPPWGDSASLNPYEPBSPDPLG 300
 Db 241 IHSQEPPTIDOLGLGVSGYCTFVSCQQQLSFLPPWGDSASLNPYEPBSPDPLG 300
 Qy 301 SPSPSPSPYTMGCRLAETRYARKGCRMYMPGDPVYCSPQQYKNCAPDAILR 360
 Db 301 SPSPSPSPYTMGCRLAETRYARKGCRMYMPGDPVYCSPQQYKNCAPDAILR 360
 Qy 361 KDSACAPNCASTRAKELSMTRIPSAAARFLARNSEAYIAENVLADIFFEALNY 420
 Db 361 KDSACAPNCASTRAKELSMTRIPSAAARFLARNSEAYIAENVLADIFFEALNY 420
 Qy 421 ETVEQKAYEMSELIGDGGNGLFIGASLITTLEIDYLCEVFRDKVLGYFWRQHSQR 480
 Db 421 ETVEQKAYEMSELIGDGGNGLFIGASLITTLEIDYLCEVFRDKVLGYFWRQHSQR 480
 Qy 481 HSSTNLQG-GLGSHTQV---PHL-----SGLPRP 507
 Db 481 HSSTNLTSHPSLCRHQDSLRLLPFLPCHTALDLISVSSEPRP 523

RESULT 6

US-10-258-073-8

; Sequence 8, Application US/10258073
 ; Publication No. US20030219850A1.

; GENERAL INFORMATION:
 ; APPLICANT: McGill University
 ; INVENTOR: Babinssi, Kazimierz
 ; TITLE OF INVENTION: A NOVEL HETEROMULTIMERIC ION CHANNEL RECEPTOR AND USES
 ; CURRENT APPLICATION NUMBER: US/103-001-WO-US
 ; CURRENT FILING DATE: 2001-04-20
 ; PRIOR APPLICATION NUMBER: PCT/CA01/00561
 ; FILE REFERENCE: 0103.001-001
 ; NUMBER OF SEQ ID NOS: 28
 ; SOFTWARE: Patentin Ver. 2.1
 ; SEQ ID NO: 8
 ; LENGTH: 533
 ; TYPE: PRT
 ; ORGANISM: RAT ASIC2A
 US-10-258-073-8

Query Match 85.8%; Score 2447; DB 15; Length 533;
 Best Local Similarity 83.5%; Pred. No. 1.3e-216;
 Matches 445; Conservative 49; Mismatches 37; Indels 2; Gaps 2;

Qy 1 MKPTSGPEEA-RROPSDIRDYFASNCMSMGHVGPGPSLSLRRGMWAAAVLVSATFV 59
 Db 1 MKPRSGIEAQRQASDIRDYFASNCMSMGHVGPGPSLSLRRGMWAAAVLVSATFV 59
 Qy 60 VAERYVYREPHQALDERESEHRLVPAVTLNCINPLRSRLTPNDLHWASALLGLDP 119
 Db 61 VAERYVYGEFHKTTLDERESEHQLTPAVTLNCINPLRSRLTPNDLHWASALLGLDP 120
 Qy 120 AEHAATLRAAGRPPAPPGFPSPFDMAQYARAGHSDDMLDCRFRGQPCPENFTI 179
 Db 121 AEHAATLRAAGRPPAPPGFPSPFDMAQYARAGHSDDMLDCRFRGQPCPENFTI 180
 Qy 180 FTRMGKCYTNSGAGELTTTRGMGNGLDIMDYQEEYLFWRNEETPFEVGRV 239
 Db 181 FTRMGKCYTNSGAGELTTTRGMGNGLDIMDYQEEYLFWRNEETPFEVGRV 240
 Qy 240 QHSQEPPTIDOLGLGVSPGYCTFVSCQQQLSFLPPWGDSSASLNP-NYEPERSDP 298
 Db 241 QHSQEPPTIDOLGFGAAGPHQTFVSCQQQLSFLPPWGDNTASLDPDDDEPERSDP 300

Qy 206 MGNGLDIMDQMDYQEEYLPPWDRNEETPFEVGRVQVHSQEPEPIIDQDGLGVSPGYCTFV 265
 Db 181 MGNGLDIMDQMDYQEEYLPPWDRNEETPFEVGRVQVHSQEPEPIIDQDGLGVSPGYCTFV 240
 Qy 266 SCQQQLSFLPPMGDCSSASLNPYEPSPDPLGSPSPSPSPYTMGCRLAETRYVA 325
 Db 241 SCQQQLSFLPPMGDCSSASLNPYEPSPDPLGSPSPSPYTMGCRLAETRYVA 300
 Qy 326 RKCGCRMVTMPGDPVYCSPQQYKNCAPDAIDALRKDSACNPCASTRAKELSMTRIP 385
 Db 301 RKCGCRMVTMPGDPVYCSPQQYKNCAPDAIDALRKDSACNPCASTRAKELSMTRIP 360
 Qy 386 SRAAFLARKLNSEAYIAENVLADIFFEALNYETEOKKAYENSELIDIGGNGLF 445
 Db 361 SRAAFLARKLNSEAYIAENVLADIFFEALNYETEOKKAYENSELIDIGGNGLF 420
 Qy 446 IGASLITTLEIDYLCEVFRDKVLGYFWRQHSQRISSTNLQ-GIJSHTQV--PHL 501
 Db 421 IGASLITTLEIDYLCEVFRDKVLGYFWRQHSRNL/TSHPSLCRHQDSLRLP.PHL 480
 Qy 502 -----SGLPRP 507
 Db 481 LPCTHTALDLISVSSEPRP 498

RESULT 7

US-10-258-073-8

; Sequence 8, Application US/10258073
 ; Publication No. US20030219850A1.
 ; GENERAL INFORMATION:
 ; APPLICANT: McGill University
 ; INVENTOR: Babinssi, Kazimierz
 ; TITLE OF INVENTION: THEREOF
 ; CURRENT APPLICATION NUMBER: US/103-001-WO-US
 ; CURRENT FILING DATE: 2001-04-20
 ; PRIOR APPLICATION NUMBER: PCT/CA01/00561
 ; NUMBER OF SEQ ID NOS: 28
 ; SOFTWARE: Patentin Ver. 2.1
 ; SEQ ID NO: 8
 ; LENGTH: 533
 ; TYPE: PRT
 ; ORGANISM: RAT ASIC2A
 US-10-258-073-8

Query Match 85.8%; Score 2447; DB 15; Length 533;
 Best Local Similarity 83.5%; Pred. No. 1.3e-216;
 Matches 445; Conservative 49; Mismatches 37; Indels 2; Gaps 2;

Qy 1 MKPTSGPEEA-RROPSDIRDYFASNCMSMGHVGPGPSLSLRRGMWAAAVLVSATFV 59
 Db 1 MKPRSGIEAQRQASDIRDYFASNCMSMGHVGPGPSLSLRRGMWAAAVLVSATFV 59
 Qy 60 VAERYVYREPHQALDERESEHRLVPAVTLNCINPLRSRLTPNDLHWASALLGLDP 119
 Db 61 VAERYVYGEFHKTTLDERESEHQLTPAVTLNCINPLRSRLTPNDLHWASALLGLDP 120
 Qy 120 AEHAATLRAAGRPPAPPGFPSPFDMAQYARAGHSDDMLDCRFRGQPCPENFTI 179
 Db 121 AEHAATLRAAGRPPAPPGFPSPFDMAQYARAGHSDDMLDCRFRGQPCPENFTI 180
 Qy 180 FTRMGKCYTNSGAGELTTTRGMGNGLDIMDYQEEYLFWRNEETPFEVGRV 239
 Db 181 FTRMGKCYTNSGAGELTTTRGMGNGLDIMDYQEEYLFWRNEETPFEVGRV 240
 Qy 240 QHSQEPPTIDOLGLGVSPGYCTFVSCQQQLSFLPPWGDSSASLNP-NYEPERSDP 298
 Db 241 QHSQEPPTIDOLGFGAAGPHQTFVSCQQQLSFLPPWGDNTASLDPDDDEPERSDP 300

Qy 266 MGNGLDIMDQMDYQEEYLPPWDRNEETPFEVGRVQVHSQEPEPIIDQDGLGVSPGYCTFV 265
 Db 181 MGNGLDIMDQMDYQEEYLPPWDRNEETPFEVGRVQVHSQEPEPIIDQDGLGVSPGYCTFV 240
 Qy 266 SCQQQLSFLPPMGDCSSASLNPYEPSPDPLGSPSPSPSPYTMGCRLAETRYVA 325
 Db 241 SCQQQLSFLPPMGDCSSASLNPYEPSPDPLGSPSPSPYTMGCRLAETRYVA 300
 Qy 326 RKCGCRMVTMPGDPVYCSPQQYKNCAPDAIDALRKDSACNPCASTRAKELSMTRIP 385
 Db 301 RKCGCRMVTMPGDPVYCSPQQYKNCAPDAIDALRKDSACNPCASTRAKELSMTRIP 360
 Qy 386 SRAAFLARKLNSEAYIAENVLADIFFEALNYETEOKKAYENSELIDIGGNGLF 445
 Db 361 SRAAFLARKLNSEAYIAENVLADIFFEALNYETEOKKAYENSELIDIGGNGLF 420
 Qy 446 IGASLITTLEIDYLCEVFRDKVLGYFWRQHSQRISSTNLQ-GIJSHTQV--PHL 501
 Db 421 IGASLITTLEIDYLCEVFRDKVLGYFWRQHSRNL/TSHPSLCRHQDSLRLP.PHL 480
 Qy 502 -----SGLPRP 507
 Db 481 LPCTHTALDLISVSSEPRP 498

RESULT 10

Do 471 DEGSHEENVSTCDTMNPNSETISH 494

Do 10-258-073-2 Sequence 2, Application US/1058073
; Publication No. US20030219858A1
; GENERAL INFORMATION:
; APPLICANT: McGill University
; APPLICANT: Babinshi, Kazimierz
; APPLICANT: Seguela, Philippe
; TITLE OF INVENTION: A NOVEL HETEROMULTIMERIC ION CHANNEL RECEPTOR AND USES
; CURRENT APPLICATION NUMBER: US/10/258,073
; PRIOR APPLICATION NUMBER: PCT/CA01/00561
; FILE FILING DATE: 2001-04-20
; PRIORITY NUMBER: 01/03-001-WO-US
; NUMBER OF SEQ ID NOS: 28
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO: 2
; LENGTH: 512
; TYPE: PRT
; ORGANISM: HUMAN ASIC2A
; US-10-258-073-2

Query Match 47.9%; Score 1365; DB 15; Length 512;
Best Local Similarity 50.6%; Pred. No. 8.3e-11; Mismatches 140; Indels 26; Gaps 5;
Matches 255; Conservative 83; Mismatches 140; Indels 26; Gaps 5;

Qy 7 PEARROPSDIRFEASNCMHEGLGHYFGPSLSSLRGMMMAAVVLSVATFLYQVAERYF
Db 7 PSEGSSLPPSSTQFANTSTLGIHRHIFTYVGPGLTRVLAFLVAVAFGLLIVVESSERY
Qy 67 YREFHHOTALDERESEHRLVFPATVLCONPLRRLSUTPLDHWGSLALGLD----PBP 121
Db 67 YFSYQHVTYKDEVVAQSLFLFPATVLCONLGRFRSLUTNDLYHAGELLALDDVNQLQI PBP 126

Qy 122 HAA--FLRALGRPPAPPGMPSPTFDMAIDLCRFGQPCGCPENFTT 178
Db 127 HLADPSVLEALRKANFHYPK-QFSMFLFLHRYGHDLXDMMLYCKFGQECOHQDTT 185

Qy 179 IFTTRMGCKYTFNSGDAEELLTTTRGMGNGLDIMLDVQBEYXLPWDRDNBTPEFV
Db 186 VETKYGKCYMNSGEGKPLLTIVGGTNGLEIMLDQDYEIPIWGTTEETFEAVK 245

Qy 239 VQHSQEEPPPIIDOLGLGVSPGYCTFVSCQQQLSFLPPWGDCSSASLNPNTPEPSPD
Db 246 VQHSQEEPPPIQEGFGPQFQEVATEQRITYLPPWGBCRSSLGDF----
Qy 299 LGSPSPSPSPPPYTLMGCR1ACETRYVARKGCCMYPDGVPCSPQOYKNCAPDA
Db 359 LRDSD-CAPNPNCSTRAYKELSMYRISRAARFLARKLNSEAYIAENVIALDIF
Qy 359 416 AEKDNYCLCRTEPCNLTREKELSMVKTSKTSKYLEKFNKEVSEK1ENVLVDL DFE 410

Qy 417 ALNNTETRKQKAYENSELLDIGSQMGLPTGASLTLTLDLCEYFRDKVLYIYELIKEKL
Db 411 ALNNTETRKQKAYENSELLDIGSQMGLPTGASLTLTLDLCEYFRDKVLYIYELIKEKL
Qy 477 HSQRHSSTNLQEGLGSHRTQVPH 500

Qy 471 DEGSHEENVSTCDTMNPNSETISH 494

Query Match 46.6%; Score 1329; DB 9; Length 526;
Best Local Similarity 49.5%; Pred. No. 1.8e-13; Mismatches 127; Indels 56; Gaps 8;
Matches 257; Conservative 79; Mismatches 127; Indels 56; Gaps 8;

Qy 13 QPSDIRPASNCMHEGLGHYFGPSLSSLRGMMAAAVVLSVATFLYQVAEBVRYEFHH
Db 14 QPVSIQAFASSTSLGHAIHFSYERLSKRAIWLCVCTEVQYFCYHH 73

Qy 73 QPALDRESEHRLVFPATVLCONPLRRLSUTPLDHWGAS-ALLG-----
Db 74 VTKLDEYASQSLTPAVTLCONLNFRESQVSQKNDLPHAGELLALINRRELPDTOMADEK 133

Qy 117 -LDPAEHAAPFLALGRPPAPPGMPSPTFDMAIDLCRFGQPCGOPEN 175
Db 134 QLEILQDQANFES----FKPBP-FNRFEFYRAGHPIRDMLSLCERGEAASAED 183

Qy 176 FITTIFRMGKCYTFNSGDAEELLTTTRGMGNGLDIMLDVQBEYXLPWDRDNBTPEFV 235
Db 184 FKVWTFTRGKCYTFNSQDGRPRLKTMKGKGTGNGQJUIMDQDYLQYLPGETDSEFA 243

Qy 236 GIRVQTHSQCEEPPPIIDOLGLGVSPGYCTFVSCQQQLSFLPPWGDCSSASLNPNTPEP
Db 244 GIKVQTHSQCDEPFTIQLGPVGAQGTTFVSQCELRILYLPSPNCTCNAVTMDSF----
Qy 296 SDPLGSPSPSPSPSPYTLMGPLACETRYVARKGCCMYPDGVPCSPQOYKNCAPDA 355

Qy 300 -----FDS1SITAICRDCTERYLVCNCGMVAQPGDAPYCTPQYKECADPAL 348

Qy 356 DAILRDS--GACPNPNCSTRAYKELSMYRISRAARFLARKLNSEAYIAENVIALD
Db 349 DFLVZDQEYCVCNCENCLTRYKGELSMVKTSKTSKYLEKFNKEVSEK1ENVLVDI 408

Qy 414 FFEALNTETRKQKAYENSELLDIGSQMGLPTGASLTLTLDLCEYFRDKVLYIYELIKEKL
Db 409 FFEVLYETEQKZAEVIAQSLGDDGQMLFIGASLTLTLDLCEYFRDKVLYIYELIKEKL
Qy 474 NROHSORHSSTNLQEGLGSHRTQVPH 512

Db 465 RRGKCOKEAKRSSADKGVA-----LSLDDVHRHNP 495

RESULT 12
US-10-092-900A-104
; Sequence 104 Application US/10092900A
; Publication No. US20040043382A1

RESULT 13
US-10-092-900A-104
; Sequence 104 Application US/10092900A
; Publication No. US20040043382A1

RESULT 14
US-10-092-900A-104
; Sequence 104 Application US/10092900A
; Publication No. US20040043382A1

RESULT 15
US-10-092-900A-104
; Sequence 104 Application US/10092900A
; Publication No. US20040043382A1

RESULT 11
US-09-983-204-13
: Sequence 13, Application US/09983204
: Patent No. US20000173000A1
: GENERAL INFORMATION:

RESULT 12
US-10-092 900A-104
; Sequence 104. Application US/10092900A
; Publication No. US20040043382A1
; GENERAL INFORMATION:
; APPLICANT: Padigaru, Muralidhara
; ATTORNEY: Spytke, Kimberly A.
; APPLICANT: Shanoy, Suresh G.
; APPLICANT: -

APPLICANT: Pena, Carol E.A.
 APPLICANT: Li, Li
 APPLICANT: Zernusen, Bryan D.
 APPLICANT: Gusev, Vladimir Y.
 APPLICANT: Ji, Weizhen
 APPLICANT: Gorman, Linda
 APPLICANT: Miller, Charles E.
 APPLICANT: Kekuda, Ramesh
 APPLICANT: Patturajan, Meera
 APPLICANT: Gangolli, Esha A.
 APPLICANT: Verner, Corine A.M.
 APPLICANT: Guo, Xiaochia Sasha
 APPLICANT: Tchernev, Velizar T.
 APPLICANT: Fernandes, Elma R.
 APPLICANT: Casman, Shacie J.
 APPLICANT: Malyankar, Urjel M.
 APPLICANT: Gerlach, Valerie
 APPLICANT: Liu, Yiqi
 APPLICANT: Anderson, David W.
 APPLICANT: Spaderna, Steven K.
 APPLICANT: Catterton, Elina K.
 APPLICANT: Leite, Mario W.
 APPLICANT: Zhong, Haihong
 APPLICANT: Alsobock, John P.
 APPLICANT: Lepley, Denise M.
 APPLICANT: Rieger, Daniel K.
 APPLICANT: Burgess, Catherine E.
 TITLE OF INVENTION: No. US2004043382A1 **Proteins and Nucleic Acids Encoding Same**

FILE REFERENCE: 21402-290C
 CURRENT APPLICATION NUMBER: US/10/092,900A
 CURRENT FILING DATE: 2002-03-07
 PRIOR APPLICATION NUMBER: USSN 60/274,322
 PRIOR FILING DATE: 2001-03-08
 PRIOR APPLICATION NUMBER: USSN 60/283,675
 PRIOR FILING DATE: 2001-04-13
 PRIOR APPLICATION NUMBER: USSN 60/338,092
 PRIOR FILING DATE: 2001-12-03
 PRIOR APPLICATION NUMBER: USSN 60/274,281
 PRIOR FILING DATE: 2001-03-08
 PRIOR APPLICATION NUMBER: USSN 60/274,191
 PRIOR FILING DATE: 2001-03-08
 PRIOR APPLICATION NUMBER: USSN 60/325,681
 PRIOR FILING DATE: 2001-09-27
 PRIOR APPLICATION NUMBER: USSN 60/304,354
 PRIOR FILING DATE: 2001-07-10
 PRIOR APPLICATION NUMBER: USSN 60/279,995
 PRIOR FILING DATE: 2001-03-30
 PRIOR APPLICATION NUMBER: USSN 60/294,899
 PRIOR FILING DATE: 2001-05-31
 PRIOR APPLICATION NUMBER: USSN 60/287,424
 PRIOR FILING DATE: 2001-04-30
 REMAINING PRIOR APPLICATION data removed - See File Wrapper or PALM.
 NUMBER OF SEQ ID NO: 768

SEQ ID NO: 104
 LENGTH: 514
 TYPE: PRT
 ORGANISM: *Homo sapiens*

US-10-092-900A-104

Query Match 46.4%; Score 1321.5%; DB 12; Length 514;
 Best Local Similarity 53.9%; Pred. No. 8.7e-113;
 Matches 244; Conservative 76; Mismatches 110; Indels 23; Gaps 6;

13 QPSDIRFA3NCM9HGLGIVFGPSLSLURGMWAAAVVLSVATELYOVAERYVYREFHH 72
 14 QPVDLYFAFANSCLTGHNTIFVEGPQGPQVILWAVATFLAIGFLCQGDRAYVYSPH 73
 73 QTAGDRESHRLV-FAVTLCNINPLRSRLTPNLDHWAGSALIGLDPDEHAFLRAIGRP 132
 74 VTLNEVATELAFAFPATLNCNTAVRLSOLSYPLLY-APMGLDDSDPVEPLA--P 129

133 RAPPGEWMSPTFDWQLYARAGHSIDDDMLDCRERGQCPENFTTBYGKCYTENSG 192

Query Match 49.8%; Score 1180; DB 10; Length 539;
 Best Local Similarity 49.8%; Pred. No. 1.1e-99;
 Matches 241; Conservative 58; Mismatches 161; Indels 30; Gaps 9;

14 PSDIRVFA3NCM9HGLGIVFGPSLSLURGMWAAAVVLSVATELYOVAERYVYREFHHQ 73
 39 PRDIAFTASTHGLGRACGPHGHRRTIWALILTSIAFLYAGLARYGLTRPHL 98
 74 TALDRESHRLV-FAVTLCNINPLRSRLTPNLDHWAGSALIGLDPDEHAFLRAIGR 131
 99 VAMPAPAPAPVAFPATLNCNINPREFSALSADPHLAN-LTGFLPKDGDHEAAGLR 156
 132 PAPPGFMSPPTDMDAQLIARSHLDMLDCRERGQCPENFTTBYGKCYTENSG 191
 157 YPEP-----DMVDILNRGHQADMLKSCNSFHCSASNFSEVYTRYGKCYTEN- 206
 192 GADGAELDTTBYGKCYTENSGIDVQDQBEYLPEWWRDNEETPPEVGRVQHQSQEPIPID 251
 207 -ADPSSPSRAGSGSLEIMDQBEYLPIWRENETSDEAIGRVQHQSQEPIPYH 265

Query Match 41.4%; Score 1180; DB 15; Length 539;
 Best Local Similarity 49.8%; Pred. No. 3e-99; Pred. No. 3e-99; Mismatches 58; Indels 30; Gaps 9;
 Matches 246; Conservative 58; Mismatches 162; Indels 30; Gaps 30; Gaps 9;
 SEQ ID NO: 290 LENGTH: 539 TYPE: PRT ORGANISM: Homo sapiens

Remaining Prior Application data removed - See File Wrapper or PALM.

Software: PatentIn Ver. 2.1

SEQ ID NO: 290 LENGTH: 539 TYPE: PRT ORGANISM: Homo sapiens

Query Match 41.2%; Score 1175; DB 10; Length 539;
 Best Local Similarity 49.6%; Pred. No. 3e-99; Mismatches 58; Indels 30; Gaps 9;
 Matches 246; Conservative 58; Mismatches 162; Indels 30; Gaps 9;
 SEQ ID NO: 2 LENGTH: 539 TYPE: PRT ORGANISM: HOMO SAPIENS

RESULT 14
 US 10-295-027-290
 ; Sequence 290, Application US/10295027
 ; PUBLICATION NO. US2003032350A1
 ; GENERAL INFORMATION
 ; APPLICANT: Afar, Daniel
 ; APPLICANT: Aziz, Natasha
 ; APPLICANT: Ginsberg, Wendy M.
 ; APPLICANT: Gish, Kurt C.
 ; APPLICANT: Glynne, Richard
 ; APPLICANT: Hevezsi, Peter A.
 ; APPLICANT: Mack, David H.
 ; APPLICANT: Murray, Richard
 ; APPLICANT: Watson, Susan R.
 ; APPLICANT: Bos Biotechnology, Inc.
 ; TITLE OF INVENTION: Methods of Diagnosis of Cancer, Compositions and
 ; FILE REFERENCE: 018501-012500US
 ; CURRENT FILING DATE: 2002-11-13
 ; PRIOR APPLICATION NUMBER: US 09/663,733
 ; PRIOR FILING DATE: 2000-09-15
 ; PRIOR APPLICATION NUMBER: US 60/350,666
 ; PRIOR FILING DATE: 2001-11-13
 ; PRIOR APPLICATION NUMBER: US 60/335,394
 ; PRIOR FILING DATE: 2001-11-15
 ; PRIOR APPLICATION NUMBER: US 60/332,464
 ; PRIOR FILING DATE: 2001-11-21
 ; PRIOR APPLICATION NUMBER: US 60/334,393
 ; PRIOR FILING DATE: 2001-11-29
 ; PRIOR APPLICATION NUMBER: US 60/340,376
 ; PRIOR FILING DATE: 2001-12-14
 ; PRIOR APPLICATION NUMBER: US 60/347,211
 ; PRIOR FILING DATE: 2002-01-08
 ; PRIOR FILING DATE: 2002-01-10
 ; PRIOR APPLICATION NUMBER: US 60/347,349
 ; PRIOR FILING DATE: 2002-02-08
 ; PRIOR APPLICATION NUMBER: US 60/356,714
 ; PRIOR FILING DATE: 2002-02-13

RESULT 15
 US-09-772-180A-2
 ; Sequence 2, Application US/09772180A
 ; Publication No. US20030027749A1
 ; GENERAL INFORMATION:
 ; APPLICANT: David C. Harrison
 ; APPLICANT: John Davis
 ; APPLICANT: Sharon Bingham
 ; APPLICANT: Trudy R. Doe
 ; APPLICANT: Simon Topp
 ; TITLE OF INVENTION: NOVEL COMPOUNDS
 ; FILE REFERENCE: GH 30021-C1
 ; CURRENT APPLICATION NUMBER: US/09/772,180A
 ; CURRENT FILING DATE: 2001-01-29
 ; PRIOR APPLICATION NUMBER: 09/063,848
 ; PRIOR FILING DATE: 1998-04-21
 ; PRIOR APPLICATION NUMBER: 9708936.1
 ; PRIOR FILING DATE: 1997-05-01
 ; PRIOR APPLICATION NUMBER: 9731089.0
 ; PRIOR FILING DATE: 1997-12-18
 ; PRIOR APPLICATION NUMBER: 9803566.0
 ; PRIOR FILING DATE: 1998-02-19
 ; NUMBER OF SEQ ID NOS: 8
 ; SOFTWARE: FastSEQ for Windows Version 3.0
 ; SEQ ID NO: 2
 ; LENGTH: 539
 ; TYPE: PRT
 ; ORGANISM: HOMO SAPIENS

Query Match 41.2%; Score 1175; DB 10; Length 539;
 Best Local Similarity 49.6%; Pred. No. 3e-99; Mismatches 58; Indels 30; Gaps 9;
 Matches 246; Conservative 58; Mismatches 162; Indels 30; Gaps 9;
 SEQ ID NO: 2 LENGTH: 539 TYPE: PRT ORGANISM: HOMO SAPIENS

Query Match 41.4%; Score 1180; DB 15; Length 539;
 Best Local Similarity 49.8%; Pred. No. 1.e-99; Length 539;
 Matches 247; Conservative 58; Mismatches 167; Indels 30; Gaps 9;
 SEQ ID NO: 295-027-290 LENGTH: 539 TYPE: PRT ORGANISM: Homo sapiens

39	Db	PRDLATTASTTLHGGRACGPPIGLRRLTWAALITSLAAFFYQAAAGBARGLTLTREHLL
74	Qy	TALDERESEHRLY-FPATVLCNINPLRSRSLTPNLD-HWAGSALLGLDPAAHAAFLBALGR
74	Db	99 VAMDPAPAPAYGFPATVLCNINPLRSRSLTPNLD-HWAGSALLGLDPAAHAAFLBALGR
132	Qy	132 PAPPAGFMPSPSTFDYAGHSLDDMLDCRFRGQPGPENETTIPTRMGKCYTFNS 191
157	Db	157 YPEP-----DMDVLDLNRTGTHQALADMALKSCNFHHCSANSFSVYTRYGKCYTFN- 200
192	Qy	192 GADGAELLTTRGMGMGLDMLDQQUEENLPWVDRNEETPPEVIGRQVQTHSQEPPPIID 255
207	Db	207 -ADPRSSLPLSSAGGMGSGLEIIMLDIOQEEYVPIRNETNEISFEAGTRQVQTHSQEPPPIH 265
252	Qy	252 QLGGLGVSPGCVFVSCQQOQLSFLPPWGDSASASLNPNEYPEPSDPLGSPSPSPSPPT 311
266	Db	266 QLGFGVSPGQFTVFSQEOQLRLPQWGNCRAES ----- -ELRPELQGYSAYS 311
312	Qy	312 LMGCRLACETRYARKRKGCRMVMYPMGDVPIVCSPOOYKNCNAHPAIDAI -LRKDSCACPNP 365
315	Db	315 VSACRDRCEKRAVLQPCRHMVHPGNETICCPNIVIECADHTLISLGGGPEGPFPFCPTP 377
370	Qy	370 CASTRYAKELSMKVRPSSAARFLARKLNSEAYIAENVIAALDIFPEALNYYTVEQKKAY 422
375	Db	375 CNTLRTRGKREISKVRINRGSRYLAIRKYNRETYRENFLVDFEALTSEANQRAAY 431
430	Qy	430 EMSLGLDGGOMGLFIGASLTILBILDYCEVFRDKVLGYFWNRCHSQRHSSTNLQE 483
435	Db	435 GLSALLGDLGGOMGLFIGASLTILBILDYTEVYSMDR-LKRVWRPKPLRTSTCGIST 491
490	Qy	490 -GLGSHTRTQPHLSLG 504
494	Db	494 LGLOEIKREOQSOSRG 509

Search completed: August 25, 2004, 13:11:47
Job time: 131 secs

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OM protein - protein search, using sw model

Run on: August 25, 2004, 12:49:58 ; Search time 33 Seconds
(without alignments)
830.709 Million cell updates/sec

Title: US-09-530-233-2
Perfect score: 2851
Sequence: 1. MKPTSGPEARRQESDIRVF.CAVTKLUSASHRTCTYLVSQL 531

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 389414 seqs, 51625971 residues

Total number of hits satisfying chosen parameters: 389414

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing First 45 summaries

Database : Issued Patents AA: *

1: /cgn2_6/ptodata/2/iaa/5A_COMBO.pep: *
2: /cgn2_6/ptodata/2/iaa/5B_COMBO.pep: *
3: /cgn2_6/ptodata/2/iaa/5B_COMBO.pep: *
4: /cgn2_6/ptodata/2/iaa/6A_COMBO.pep: *
5: /cgn2_6/ptodata/2/iaa/6B_COMBO.pep: *
6: /cgn2_6/ptodata/2/iaa/backfile1.pep: *

Pred. No. is the number of results Predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	28.33	99.4	531	3	US-09-366197-14
2	24.47	85.8	533	3	US-09-366197-10
3	13.65	47.9	512	2	US-08-822-596-2
4	13.65	47.9	512	3	US-09-366197-6
5	12.29	46.9	539	3	US-09-366197-8
6	13.29	46.6	526	3	US-09-366197-2
7	12.95	46.3	514	3	US-09-366197-4
8	12.49	43.8	563	3	US-09-366197-12
9	11.80	41.4	539	4	US-09-51-959-8
10	11.74	41.2	539	4	US-09-51-959-9
11	41.9	14.7	625	3	US-09-366197-15
12	41.85	14.7	698	1	US-08-376-3624-20
13	14.1	4.9	564	3	US-09-366197-16
14	34.25	12.0	493	6	519333-4
15	34.15	12.0	755	3	US-07-861-458C-99
16	33.85	11.9	753	3	US-07-861-458C-98
17	32.0	11.2	520	3	US-07-861-458C-100
18	24.9	8.7	294	6	519333-2
19	13.9	4.5	519633-9		
20	12.7	4.5	173	6	519333-6
21	11.7	4.1	67	6	519333-0
22	106.5	3.7	663	4	US-09-54-681A-4450
23	10.3	3.6	1739	4	US-09-976-594-76
24	101.5	3.6	1027	4	US-09-252-99A-17886
25	100.5	3.5	2476	2	US-08-276-967-2
26	98	3.4	40	3	US-08-458C-118
27	98	3.4	659	4	US-09-562-737-20

ALIGNMENTS

RESULT 1
US-09-360-197-14
; sequence 14, Application US/09360197
; GENERAL INFORMATION:
; APPLICANT: Bassilana, Frederic
; PATENT NO. 6287859
; APPLICANT: Lazunski, Michael
; APPLICANT: Waldmann, Rainer
; APPLICANT: Dewille, Jan R.
; TITLE OF INVENTION: Cationic Channels, Their Cloning and Applications
; FILE REFERENCE: 939_6705P
; CURRENT APPLICATION NUMBER: US/09/360,197
; PRIORITY APPLICATION NUMBER: 09/129,758
; PRIORITY FILING DATE: 1998-08-05
; PRIORITY APPLICATION NUMBER: 60/095,408
; PRIORITY FILING DATE: 1998-08-05
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 14
; LENGTH: 531
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-360-197-14

Query Match 99.4%; Score 2833; DB 3; Length 531;
Best Local Similarity 99.2%; Pred. No. 1.5e-273;
Matches 527; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Qy 1 MKPTSGPEEARROPIRDYRFAASNCNSMEGLGHVFGSPGSLSLRQRGMWAAAVVLSVATFLYQV 60
Db 1 MKPTSGPEEARRPAASDIRDYRFAASNCNSMEGLGHVFGSPGSLSLRQRGMWAAAVVLSVATFLYQV 60
Qy 1 AERYYYREPHHQALDERESEHRLIPTAVTLCNINPLRSRLTPNDLHWAGSALLGLDPA 120
Db 61 AERYYYREPHHQALDERESEHRLIPTAVTLCNINPLRSRLTPNDLHWAGSALLGLDPA 120
Qy 121 EHAALRGLRPPAPGFMPSPTDMAQIYARACHSLDDMLLCRFRQGQPCGPBNFTIF 180
Db 121 EHAALRGLRPPAPGFMPSPTDMAQIYARACHSLDDMLLCRFRQGQPCGPBNFTIF 180
Qy 181 TRMGCYTENSGADAEELLTTTRGGNGLIDMJDQOEEBLYPWRDNEETPPEVGIRVQ 240
Db 181 TRMGCYTENSGADAEELLTTTRGGNGLIDMJDQOEEBLYPWRDNEETPPEVGIRVQ 240
Qy 241 IHSQEEPPIDQLGIVSPGKQTFVSCQQQLSFLPPWGDCSSASLNPNYEPPSDPLG 300
Db 241 IHSQEEPPIDQLGIVSPGKQTFVSCQQQLSFLPPWGDCSSASLNPNYEPPSDPLG 300

Query 301. SPSPSPSPSPYTMGCRLLACETRYARKGCRMVYMPGDPVSPQQYKNCAPDAILE 360
 Db 301. SPSPSPSPYTMGCRLLACETRYARKGCRMVYMPGDPVSPQQYKNCAPDAILE 360
 Query 361. KDSACAPCNPCASTRYAKELSMWIRPSAAARFLARKLNSEAYIAANVLLALDIFFEALNY 420
 Db 361. KDSACAPCNPCASTRYAKELSMWIRPSAAARFLARKLNSEAYIAANVLLALDIFFEALNY 420
 Query 421. ETVEQKAYEMSELLDGGOMGFLIGASLLTLEIDLYCEVERDKVLYGFWAROHSQR 480
 Db 421. ETVEQKAYEMSELLDGGOMGFLIGASLLTLEIDLYCEVERDKVLYGFWAROHSQR 480
 Query 481. HSSTNLIQLGGSHRTQVPHLSLGPRTTPCAVTKTLASHRTCYLVTL 531
 Db 481. HSSTNLIQLGGSHRTQVPHLSLGPRTTPCAVTKTLASHRTCYLVTL 531

RESULT 3
 US-08-828-596-2
 ; Sequence 2, Application US/08828596
 ; Patent No. 5892018

GENERAL INFORMATION:
 ; APPLICANT: Price, Margaret P.
 ; ADDRESS: 10000 N. 100th Street, Suite 200, Omaha, NE 68136-1500
 ; INVENTOR: Price, Margaret P.
 ; TITLE OF INVENTION: A Method for Treating a Disease or Condition by
 ; NUMBER OF SEQUENCES: 5
 ; CORRESPONDENCE ADDRESS: 10000 N. 100th Street, Suite 200, Omaha, NE 68136-1500
 ; STREET: 10000 N. 100th Street, Suite 200, Omaha, NE 68136-1500
 ; CITY: Omaha, NE
 ; STATE: Nebraska
 ; COUNTRY: United States
 ; ZIP: 68136-1500

COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC- DOS/MS-DOS
 ; SOFTWARE: Patent In Release #1.0, Version #1.3.0
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/828,596
 ; FILING DATE:
 ; CLASSIFICATION: 435
 ; PRIORITY APPLICATION DATA:
 ; APPLICATION NUMBER: US 08/626,838
 ; FILING DATE: 02-APR-1996
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Nebel, Heidi S.
 ; REGISTRATION NUMBER: 37,719
 ; REFERENCE/DOCKET NUMBER: uif n6-53
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: 515-288-3657
 ; TELEFAX: 515-288-1338
 ; INFORMATION FOR SEQ ID NO: 2:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 512 amino acids
 ; TYPE: amino acid
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: protein
 ; US-08-828-596-2

Query Match 85.8%; Score 2447; DB 3; Length 532;
 Best Local Similarity 83.5%; Pred. No. 4-35;
 Matches 445; Conservative 49; Mismatches 37; Indels 2; Gaps 2;

Query 1 MRPSTGPBEA-RPQPSDIRVFAASNCNSMHGHHVFGGSLSURRGWAAAVVLSVATFLYQ 59
 Db 1 MPRSGLEEAQRQASDIRVFAASCTMKGHLHIFGGGLLURRGWATAVLSSAFLYQ 60

Query 60 VAERVRYYREFHQTALDERESEHRLVFPATLNCINPLRSRLTNDLHWAGSALLGLDP 119
 Db 61 VAERVRYYGEFHKKTTLDERESEHRLVFPATLNCINPLRSRLTNDLHWAGTALLGLDP 120

Query 120 AHEAAFLRALGRREPPGMPSPDMDAQLYARAGHSIDMMLDGRFRGPGCGBENFTI 179
 Db 121 AHEAAFLRALGRREPPGMPSPDMDAQLYARAGHSIDMMLDGRFRGPGCGBENFTI 180

Query 180 FTRMGKCYTENSAGDAEFLTTTRGGMGNGLDIMLDVQOQEYLPYRDNBETPEEVGIRV 239
 Db 181 FTRMGQCYTFNSGAHGAELLTPKGAGANGLIMLDVQOQEYLPWQMDMETPEEVGIRV 240

Query 240 QHQSQEPPTIQLGLGSPGYQTFVSCQQQLSFLPPNGDCSSA1NP-NYBEPPEPSPD 298
 Db 241 QHQSQDPPEAIIQLGFAAHPQHOTFVSCQQQLSFLPPNGDCNTASLQDFFDPEPSPD 300

Query 299 LGSPSPSPSPYTMGCRLLACETRYARKGCRMVYMPGIVPVCSPQQYKNCAPDAI 358
 Db 301 LGSPRPRSPSPYPSLGLRLLACESRYARKGCRMVYMPGIVPVCSPQQYKDCAPALDAM 360

Query 359 LRDSCAPNPCASTRYAKELSMVRPSRAARFLARKLNSEAYTAENVLLALDIFFAL 418

Db 186 VFTKYKCYMNSGEDGKPLLTUVGGTONGLEIMLDIQQDBYLPWGTEETTPEAGVK 245
 Qy 239 VOHSQEPEPIIDOLGLGSPGYOTEVSCQCOOLSFLLPPNGDCSSASLNPNYEPEPSDP 298
 Db 246 VQIHQSQEPPFQIQLGFGVAPGQTFTVQBLTLYPPWECRSEMGDF----- 298
 Db 299 LGSPSPSPSPSPYTMGCRLACEPTVARKCGCRMVMYMPGDVPCSPQQYKNCAHPAIDAI 358
 Qy 299 -----FVVSITACRIDEPTVYVENCRCRMYMPGDAPEFCPEOKECAPAGL 350
 Db 359 LRKDS--CACPNPCASTRYAKELSMRIPSSAARFLARKLNRSYIAENVLDAIDIFFE 416
 Qy 351 AEQDSNYCLCRTPCNLTRYNEKLSMVKPSRTSAKYLEKKFNKSKYISENVLVIDIFFE 410
 Db 359 LRKDS--CACPNPCASTRYAKELSMRIPSSAARFLARKLNRSYIAENVLDAIDIFFE 416
 Qy 417 ALNYETVEQKAYEMSSLLGDIGQNGLFIGASLITLETLDLCEVERDKVLYFWNRQ 476
 Db 411 ALNYETVEQKAYEVALLGDIGQNGLFIGASLITLEFDDYXELIKEKLDLIGKEE 470
 Qy 417 DEGSHEAVSTCDTMNPNSETISH 494
 Db 411 HSQRSSTNLQEGLGSHRTQVPH 500
 Qy 417 DEGSHEAVSTCDTMNPNSETISH 494
 Db 417 DEGSHEAVSTCDTMNPNSETISH 494
 RESULT 5
 US-09-360-197-8
 / Sequence 8, Application US/09360197
 / Patent No. 628859
 / GENERAL INFORMATION:
 / APPLICANT: Bassilana, Frederic
 / Lazdunski, Michel
 / APPLICANT: Wallmann, Rainer
 / APPLICANT: Dewelle, Jan R.
 / TITLE OF INVENTION: Human and Rat Families of Neuronal Acid-Sensitive
 / Cationic Channels, Their Cloning and Applications
 / FILE REFERENCE: 389.6706
 / CURRENT APPLICATION NUMBER: US/09/360,197
 / CURRENT FILING DATE: 1997-07-23
 / PRIORITY NUMBER: 09/129,758
 / PRIORITY NUMBER: 1998-03-05
 / PRIORITY NUMBER: 60/095,408
 / PRIORITY FILING DATE: 1998-08-05
 / NUMBER OF SEQ ID NOS: 22
 / SOFTWARE: Patentin Ver. 2.1
 / SEQ ID NO: 8
 / LENGTH: 559
 / TYPE: PRT
 / ORGANISM: *rattus* sp.
 US-09-360-197-8
 Query Match 46.9%; Score 1337; DB 3; Length 559;
 Best Local Similarity 49.8%; Pred. No. 2.2e-124;
 Matches 256; Conservative 82; Mismatches 142; Indels 34; Gaps 7;
 Qy 1 MKPTSGPBEARHQPSDITRFAINSNSHGLGHVFGPOLSURRGWAAYVLSVATFLYQV 60
 Db 47 MEAGSELDEGDSSPRDLVAFANSCTIGASHVVECGPGRQALWAVAFVIALGAFLCQV 106
 Qy 61 AERYYYREFFHOTALDRESHRLVPAVTLCNINFLRRLTPNDLHWAGSALLGDDA 120
 Db 107 GDRAYLSPYHPTLLEAVATELVPAVFCNTNAVRQLSYFLDLYL-APMLGDD 165
 Qy 121 EHAFAFLRGRPPAPGMPSPSTFDQWLYTARAGHSDDMLDGRFGCOPENFTTF 180
 Db 166 DDPGVPLA--DGPFAFSGEP-FNHLRPNRSCHRLEDMLYCSGGPCGPNSVVF 221
 Qy 181 TRGKCTTENSADGABLLTTRGGNGQDIMALDQQBELLPTPFDVGRIVQ 240
 Db 222 TRGKCTTENSQDGRRLKTMGGTNGLEIMLDIQQDYLWPGETDTSFAGIKVQ 281
 Qy 241 IHSQEPEPIIDQGLGSPGYOTEVSCQCOOLSFLLPPNGDCSSASLNPNYEPEPSDPLG 300
 Db 282 IHRQDEPFIDQGFGVAPGQTFCVQEORLIVIPSPWOTCNATMDSF----- 332
 Qy 301 SPPSPSPSPSPYTMGCRLACEPTVARKCGCRMVMYMPGDVPCSPQQYKNCAHPAIDAILR 360
 Db 333 -----FDSYSTACRIDEPTVYVENCRCRMYMPGDAEYCTPQYKRCADPAFLVZ 386
 Qy 361 KDS--CACPNPCASTRYAKELSMRIPSSAARFLARKLNRSYIAENVLDAIDIFFE 418

387 KDGQEVYCVCEMPCNLTRYGIEKLSMVKPSRASAKYLAKKPKNSSEQYIGENILVLDIFFEV 446
 Qy 419 NYETVEQKAYEMSELIGGQMLGPIGASLITTLELDLVCVEFRDKVULGYFWNRQHS 478
 Db 447 NYETVEQKAYEIAIGLGLIGGQMLGPIGASLITTLELDLVCVEFRDKVULGYFWNRQHS 495
 Qy 479 QRHGSTNLQEGLGSHTQVPHLSLGPPPTPPC 512
 Db 503 QKEAKRSSADKGVA-----LSLDDVKRHNPc 528

RESULT 6
 US-09-360-197-2
 Sequence 2, Application US/09360197
 Patent No. 6287559
 GENERAL INFORMATION:
 APPLICANT: Bassilana, Frederic
 Lazardski, Michel
 APPLICANT: Waldmann, Rainer
 APPLICANT: Deweille, Jan R.
 TITLE OF INVENTION: Human and Rat Families of Neuronal Acid-Sensitive
 Cationic Channels, Their Cloning and Applications
 FILE REFERENCE: 989-6706P
 CURRENT APPLICATION NUMBER: US/09/360,197
 PRIORITY FILING DATE: 1997-07-23
 PRIORITY NUMBER: 09/129,758
 PRIORITY NUMBER: 60/095,408
 CURRENT FILING DATE: 1998-08-05
 PRIORITY NUMBER: 09/129,758
 PRIORITY NUMBER: 60/095,408
 NUMBER OF SEQ ID NOS: 22
 SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 4
 LENGTH: 514
 TYPE: PRT
 ORGANISM: Homo sapiens
 US-09-360-197-4

Query Match 46.6%; Score 1329; DB 3; Length 526;
 Best Local Similarity 49.5%; Pred. No. 1.3e-123; Indels 56; Gaps 8;
 Matches 257; Conservative 79; Mismatches 127; Indels 127; Gaps 8;

Query Match 46.6%; Score 1329; DB 3; Length 526;
 Best Local Similarity 49.5%; Pred. No. 1.3e-123; Indels 56; Gaps 8;
 Matches 257; Conservative 79; Mismatches 127; Indels 127; Gaps 8;

Query 13 QPSDIRVAFNSCSMGMHGHVFGPGSLSLIRGMWAAAVLSVATEFLYQVAERVYXREPH 72
 Db 14 QPVSIQFASSSTLGHAIHPSYERLSLRAKWLALCFLGAVLCLCVTERQYFCYTH 73
 Qy 73 QTALEDEBESHLVFPAVTLCNINPLRSRLTPNDLHWAGS -ALIG----- 116
 Db 74 VTKLDEVAASQSLTFPAVTLCNINPLRFPSQSKNDLYHAGFLLALLNRYEIPDTQMADEBK 133
 Qy 117 -LDPAAHAFRALGRPPAPPQGMSPPTFMDQYARAGSLDMLLDRFRGQPGFBN 175
 Db 134 QLEILQDKANPRA-----FKEKRP-FNMRFFYDRAQHDIRMLLSHFRGEACSAED 183
 Qy 176 FTTIFRMGKCYTNSGADGABELLTTRGGNGLIDMUDQQEYLPYWRDNEETPPEV 235
 Db 184 FKVVFYRGKCYTNSGQDRGRPLKTMKGTTGNGLEIMLDIQQDELYPWGEDETESEA 243
 Qy 236 GIRVQTHSQEPPPIIDQLGQSPGQYQTFYSCQOCQSLPFLPPNGDCSSASLNPYEPB 295
 Db 244 GIKVQTHSQDPPPFIDQLGQVAPFQTFSCQSRLTVLSPGTNAVTMDSDF ---- 299

296 SDPLGSPSPSPSPSPSPPTLMGCRALACTRYXARKCGCRMTYMPGDPVPSQOYKNCAPAI 355
 Db 300 -----FDS-SITARCRIDCTRYIVENCNCRMTYMPGDPVPSQOYKNCAPAI 348
 Qy 356 DAILRDKS--CACPNPCASTRYAKELSMYTRIPSPRAARFLARKLNRSAYIENYALLDI 413
 Db 349 DFLVERDQEBYCVCENPCNLTTRYGELSMYTRIPSPAKSAYKLAKEFNKSPQYGENILVLDI 408
 Qy 414 FPEALNYETEQQKAYEMSELIGGQMLGPIGASLITTLELDLVCVEFRDKVULGYFW 473
 Db 409 FFEVLYNTEEQKAYEIAQGLGIGGQMLGPIGASLITTLELDLVCVEFRDKVULGYFW 464

Qy 474 NQHQSRRHSSSTNLQEGLGSHTQVPHLSLGPPPTPPC 512
 Db 465 RRGICQKEAKRSSADKGVA-----LSLDDVKRHNPc 495

RESULT 7
 US-09-360-197-4
 Sequence 4, Application US/09360197
 Patent No. 6287559
 GENERAL INFORMATION:
 APPLICANT: Bassilana, Frederic
 Lazardski, Michel
 APPLICANT: Waldmann, Rainer
 APPLICANT: Deweille, Jan R.
 TITLE OF INVENTION: Human and Rat Families of Neuronal Acid-Sensitive
 Cationic Channels, Their Cloning and Applications
 FILE REFERENCE: 989-6706P
 CURRENT APPLICATION NUMBER: US/09/360,197
 CURRENT FILING DATE: 1997-07-23
 PRIORITY APPLICATION NUMBER: 09/129,758
 PRIOR FILING DATE: 1998-08-05
 PRIORITY APPLICATION NUMBER: 60/095,408
 PRIOR FILING DATE: 1998-08-05
 NUMBER OF SEQ ID NOS: 22
 SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 4
 LENGTH: 514
 TYPE: PRT
 ORGANISM: Homo sapiens
 US-09-360-197-4

Query Match 46.3%; Score 1319; DB 3; Length 514;
 Best Local Similarity 49.2%; Pred. No. 1.2e-122; Indels 54; Gaps 8;
 Matches 255; Conservative 80; Mismatches 129; Indels 54; Gaps 8;

Qy 14 PSDIRVAFNSCSMGMHGHVFGPGSLSLIRGMWAAAVLSVATEFLYQVAERVYXREPHQ 73
 Db 1 PVSIQARASSSTLGHMWHITPSYERLSKRLWPLFLGSALVLCVTERQYFPHHV 60
 Qy 74 TAIDERSHSLVFPAVTLCNINPLRSRLTPNDLHWAGS -ALIG----- 116
 Db 61 TRKDEVASQSLTFPAVTLCNINPLRFPSQSKNDLYHAGELLALUNRNREPDTONADEBK 120
 Qy 117 LDPAENHAAFLPAGRPPAPPQGMSPPTFMDQYARAGSLDMLLDRFRGQPGFBN 176
 Db 121 LBILQDQANPFS-----FKEKRP-FNMRFFYDRAQHDIRMLLSHFRGEACSAEDF 170
 Qy 177 TTIFTRMGKCYTNSGADGABELLTTRGGNGLIDMUDQQEYLPYWRDNEETPPEV 236
 Db 171 KVVFYRGKCYTNSGGRPLKTMKGTTGNGLEIMLDIQQDELYPWGEDETESEA 243
 Qy 237 IRQVTSQEEPPPIIDQLGQSPGQYQTFYSCQOCQSLPFLPPNGDCSSASLNPYEPB 296
 Db 231 IKVQTHSQDPEPFIDQLGQVAPFQTFSCQSRLTVLSPGTNAVTMDSDF 290
 Qy 297 DPLGSPSPSPSPSPSPPTLMGCRALACTRYXARKCGRMVNMGDPVPSQOYKNCAPAI 355
 Db 291 -----YSITACRIDCTRYIVENCNCRMTYMPGDPVPSQOYKNCAPAI 337
 Qy 357 AIRRDKS--CACPNPCASTRYAKELSMYTRIPSPRAARFLARKLNRSAYIENYALLDI 414
 Db 338 PLVEKDQEBYCVCENPCNLTTRYGELSMYTRIPSPAKSAYKLAKEFNKSPQYGENILVLDI 397
 Qy 415 FEALNYETEQQKAYEMSELIGGQMLGPIGASLITTLELDLVCVEFRDKVULGYFW 474
 Db 398 FPEVLYNTEEQKAYEIAQGLGIGGQMLGPIGASLITTLELDLVCVEFRDKVULGYFW 453
 Qy 475 RQHQSRRHSSSTNLQEGLGSHTQVPHLSLGPPPTPPC 512
 Db 454 RRGICQKEAKRSSADKGVA-----LSLDDVKRHNPc 483

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Sequence 12, Application US/09360197
 Patent No. 6287859
 GENERAL INFORMATION
 APPLICANT: Bassilana, Frederic
 APPLICANT: Lazdunski, Michel
 APPLICANT: Waldmann, Rainer
 TITLE OF INVENTION: Human and Rat Families of Neuronal Acid-Sensitive
 FILE REFERENCE: 998-6706P
 CURRENT APPLICATION NUMBER: US/09/360,197
 CURRENT FILING DATE: 1997-07-23
 PRIOR APPLICATION NUMBER: 09/129,758
 PRIORITY FILING DATE: 1998-08-05
 PRIOR APPLICATION NUMBER: 60/095,408
 PRIOR FILING DATE: 1998-08-05
 NUMBER OF SEQ ID NOS: 22
 SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO: 12
 LENGTH: 563
 TYPE: PRT
 ORGANISM: *rattus* sp.
 Sequence 13-09-360-197-12
 Query Match 43.8%; Score 1249.5%; DB 3; Length 563;
 Best Local Similarity 47.5%; Pred. No. 1.2e-151; Indels 41; Gaps 8;
 Matches 245; Conservative 79; Mismatches 151;
 Query Match 43.8%; Score 1249.5%; DB 3; Length 539;
 Best Local Similarity 49.8%; Pred. No. 9.4e-109; Indels 30; Gaps 9;
 Matches 241; Conservative 58; Mismatches 161;
 SEQ ID NO: 8
 LENGTH: 539
 TYPE: PRT
 ORGANISM: *Homo sapiens*
 US-09-518-959-3
 Query Match 41.4%; Score 1180; DB 4; Length 539;
 Best Local Similarity 49.8%; Pred. No. 9.4e-109;
 Matches 241; Conservative 58; Mismatches 161;
 SEQ ID NO: 9
 CURRENT FILING DATE: 2000-03-03
 NUMBER OF SEQ ID NOS: 9
 SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO: 8
 TITLE OF INVENTION: Cationic Channels, Their Cloning and Applications
 FILE REFERENCE: 998-6706P
 CURRENT APPLICATION NUMBER: US/09/360,197
 CURRENT FILING DATE: 1997-07-23
 PRIOR APPLICATION NUMBER: 09/129,758
 PRIORITY FILING DATE: 1998-08-05
 PRIOR APPLICATION NUMBER: 60/095,408
 PRIOR FILING DATE: 1998-08-05
 NUMBER OF SEQ ID NOS: 22
 SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO: 12
 LENGTH: 563
 TYPE: PRT
 ORGANISM: *rattus* sp.
 Sequence 13-09-360-197-12
 Query Match 43.8%; Score 1249.5%; DB 3; Length 563;
 Best Local Similarity 47.5%; Pred. No. 1.2e-151; Indels 41; Gaps 8;
 Matches 245; Conservative 79; Mismatches 151;
 6 GPEBARR QPSDIRVFAQNSCMHGLH----FPGPSLSSLERGMNAAAVVLSVATFLYQV 60
 50 GPGVARRPES----L8RTKLHGLRHMCAVRTAAGSFQRRLWVLAFTCTGILLWS 104
 61 AERVYRYREFHHTALDRESHRLVFPATLGNINPLRSRTPNDLHWASALLGLDPA 120
 105 SNRLLWNSFPSPHTRVFREWSRQLPFPATVCNNNLPFPRLSKGDLYVAGHMLGLLPN 164
 121 EHA-AFIRALGPAPPQ----FVPSPTP----MAQLYAAGHSIDDMILDCRF 166
 165 RYAPLPVNSELLGDEPRRQWRKLADPFLPDRHFGISAAPMDRQJEDMILUSCKY 224
 167 RQPCPGPENFTITRNGKCYTFNSGADGABLTTRGGMNGLDIMLDVQEQEYLPVNR 226
 225 RGLCGPNFSSVTPYKCYFNNSGDKPLITTRGTTGNGLEMLDQDQETLPING 284
 227 DNEETPPEVGVIRVQHSEEPPLIDQLGIVSPGKQTFPSQOQQLSFLPPWGDCSSAS 286
 285 ETTEETPPEVGVQHSEEPPLIDQLGIVSPGKQTFPSQOQQLSFLPPWGDCSSSE 344
 287 LNEVYBPPSPDLSGSP 346
 345 MGIDF----FVYVSLTACR1DCETRVIVCNCRVMHPGDAFPCTPEQ 389
 347 YNCNAHPIDALLRKS---CACPNPCASTRATKELSRVTPSRAARFLARKLNSEAYI 404
 390 HPGCAEPAIGLAAKEDNVCACRTPCNLTKNKEISKTSKTSKYLKKKENSEYI 449
 405 AENVLAQDIFFEALNYETVEQKAYENSEELQGIGMGLTIGASLTLLTLDYCEVF 464
 450 SENLVLIDIFFEALNYETVEQKAYEAVALLDQGGMGLTIGASLTLLTLDYIYELI 509
 465 RDXVLYGYFWNRQHQSREHSTNLLQEGLGSHTQVPH 500
 510 KEKLLDQKKEEEGSHDENMSTCDINPHNSETISH 545
 RESULT 9
 Sequence 1-09-18-959-8
 Patent No. 6548270
 GENERAL INFORMATION
 APPLICANT: Dubin, Adrienne E
 APPLICANT: Erlander, Mark G
 APPLICANT: Pyat, Jayashree
 TITLE OF INVENTION: DNA encoding human acid-sensing ion
 FILE REFERENCE: ORT-1197
 CURRENT APPLICATION NUMBER: US/09/518,959
 NUMBER OF SEQ ID NOS: 9
 SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO: 9
 TITLE OF INVENTION: DNA encoding human acid-sensing ion
 FILE REFERENCE: US-09-518-959-9
 Sequence 9, Application US/09518959
 Patent No. 6548270
 GENERAL INFORMATION
 APPLICANT: Dubin, Adrienne E
 APPLICANT: Erlander, Mark G
 APPLICANT: Pyat, Jayashree
 TITLE OF INVENTION: DNA encoding human acid-sensing ion
 FILE REFERENCE: ORT-1197
 CURRENT APPLICATION NUMBER: US/09/518,959
 NUMBER OF SEQ ID NOS: 9
 SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO: 9

LENGTH: 539
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-518-959-9

Query Match 41.2%; Score 1174; DB 4; Length 539;
Best Local Similarity 49.6%; Pred. No. 3.7e-10; Indels 30; Gaps 9;
Matches 246; Conservative 38; Mismatches 162; Indels 30; Gaps 9;

Qy 14 PSDIRVFAINSNCMGLGHVFGPGSLSLRGGMWAAAVLSVATFLYQAAERVRYREFHQQHQL 76
Db 39 PRDLATEASTSTLHGLGRACGPGHGLRTWLWALLTSLAAFLYQDAGLARGYLTRPHL 98
Qy 74 TALDRESRLLV- PPAVTLCINPLRRLRPTDNL-HWAGSALLGDPAAHAAFLALGR 131
Db 99 VAMPPAAPAVPAGEPAVTLCINPLRRLRPTDNL-HWAGSALLGDPAAHAAFLALGR 156
Qy 132 PPAPRGFMSPPTEDMAQLYARAGHSLLDDMLDCRFRGQCPGPNFTTIFTRMKCYTENS 191
Db 157 YPEP-----DMDLILNTRTHQLAHLMLKSNSFHHCSASNSFVYTHGCKYTFN- 206
Qy 192 GADGAELLITTRGGMGLDIMALDQCEPEYLWYRDNBETPPEVGIRVOHQHSQEERPIID 251
Db 207 -ADPRSSLSRAGMGSGEIMDIOCEPEYLWIRETNETNSEAGIRVOHQHSQEERPYH 265
Qy 252 QIGIGVSPGQTYEVSCQQQSLPPWGDCSSAQNPNYEPSPSPPYT 311
Db 266 QLGFQVSPSFQETVSQCEQRQLTLPQDGNGRAES-----ELRPEELQGSAIS 314
Qy 312 IMGRCLAEATTRYFARKCCRMVYMPGDVPPVCSPOQYKNCAPAIAD--LRKDSACPNP 369
Db 315 VSCAULRKEAQLQRCHCRMVHMPGNETICPPNITIECAHTLSDIGGPEGPFCPTP 374
Qy 370 CASTRAYKELSMYRPSRAARFLARKLNRSPAYIAENVIALDIFFEALNAYTEVQKAY 429
Db 375 CNLTRYKEISMYRPIRGASRYLARYNRENTYIRENFLVLDVEEAUJSEAMEQRAY 434
Qy 430 EMSEILGDIGGONGLFIGASLITTLELDYICEVFDKVLGYFMRQHSRPHSSNLLE 499
Db 435 GUSALLGDIGGONGLFIGASLITTLELDYIEVSMDR-LRKVWRERPKTDLRTSTGGTIST 493
Qy 490 -GLGSHRTQVPHLSLG 504
Db 494 LGIQLELQEQQSPCPSRG 509

RESULT 11
US-09-360-197-15
; Sequence 15, Application US/09360197
; Patent No. 6287859
; GENERAL INFORMATION:
; APPLICANT: Bassilana, Frederic
; APPLICANT: Lzdzinski, Michal
; APPLICANT: Waldmann, Rainer
; APPLICANT: Dewelle, Jan R.
; TITLE OF INVENTION: Human and Rat Families of Neuronal Acid-Sensitive
; FILE REFERENCE: 989-6706P
; CURRENT APPLICATION NUMBER: US/09/360,197
; CURRENT FILING DATE: 1997-07-23
; PRIORITY APPLICATION NUMBER: 09/129,758
; PRIORITY FILING DATE: 1998-08-05
; PRIORITY APPLICATION NUMBER: 60/095,408
; PRIORITY FILING DATE: 1998-08-05
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 15
; LENGTH: 625
; TYPE: PRT
; ORGANISM: Helix aspersa
US-09-360-197-15

Query Match 14.7%; Score 419; DB 3; Length 625;

Best Local Similarity 22.2%; Pred. No. 8.6e-33;
Matches 136; Conservative 99; Mismatches 191; Indels 186; Gaps 20;

Qy 17 IRVFAINSNCMGLGHVFGPGSLSLRGGMWAAAVLSVATFLYQAAERVRYREFHQQHQL 76
Db 43 IAELSESNAHGLAKITVSRD-TKRVWIALYTAGFTAATLQLSLVTKYLOQVYEL 101
Qy 77 DERERHSLVPAVTLCINPLRRLRPTDNL-HWAGSALLGDPAAHAAFLALGR 128
Db 102 EIKDMSMPVQYPSVSVCNIEPISLRTIRMYENNEQNOLITWL-RFICKERFQDSFMS 159
Qy 129 LGRPPAPPGFMPSPTE--DIAQLYARAGHSLLDDMLDCRFRGQCPGENFTIFT-RMGK 185
Db 160 I-----RAFYENLQDAKLLHNLBNLMLHFRNRLCHVNSFSTFDGNYFN 207
Qy 186 CYTFNSGADGAEELLTTTRGGMGNGLDMLDVQCOBEYELP---WWRDNEETPPEVGTRVQI 241
Db 208 CPTFNSG---QRLQMHATGPENGSLFISVSRDPLPQGTYGYVNFDNNILHSAGYRvvV 263
Qy 242 HSQEPEPPLIDQLGIGVSPYQTYEVSCQQQSLPPLPGDQSSASLN-PNYPEPEPSDPL 299
Db 264 HAPGSSMPSPVSDHGIDIPPPYSSVGLAHLHTRPQYGNCTNDMINGIKOYK-----316
Qy 300 GSPSPSPSPSPYITLMGCRLAETTRYVARKCGCRMVYMRGDVP-----340
Db 317 -----YTFFAHQQLCKQLRLLIQRGCKSSAUL-EVPSYNATTCGVILKDQWQEINRN 365
Qy 341 -----VCPSPQYKNCAPHAIDAILRKD---SCAPNPNCSTR 374
Db 366 HSNEDHNQSEEDNQSEEDRAFIPTPYLACEERDQK-----LNNDRTYELSGCQFQPOSETS 416
Qy 375 YAKELSWRIP-----SRAAAFLFLARKLNRSAYIA-----405
Db 417 YLKSVSLSYWPFLFYQLSAVERFFKQERQAGONHFMKTALEYLAHPSQHLRNDNSH 476
Qy 406 -----ENVLALDIFFFALNAYTEVQKAYEMSELLGDIGG 440
Db 477 MDDILSSYSLSERKEMAREASLIRQMLRINTYLSDLSVBYRQLPAYGLADLADIGG 536
Qy 441 QMGLFLIGASLITTLELDYICEVFDKVLGYFMRQHSRPHSSNLLE 440
Db 537 TIGLWMGKSTVMMELV1---RLTGLVFNSEKGPRGPTVNNNNNSNNHSQ-ST 590
Qy 493 SMLLQSLGSH 494
Db 591 SQQQLYNGYMDH 602

RESULT 12
US-09-360-197-15
; Sequence 20, Application US/08376362A
; Patent No. 5633756
; GENERAL INFORMATION:
; APPLICANT: Li, Xiao-Jiang
; APPLICANT: Blackshaw, Seth
; APPLICANT: Snyder, Solomon H.
; APPLICANT: Li, Xiaojian
; TITLE OF INVENTION: AMILORIDE-SENSITIVE SODIUM CHANNEL AND
; METHOD OF IDENTIFYING SUBSTANCES WHICH STIMULATE OR BLOCK
; TITLE OF INVENTION: SALTY TASTE PERCEPTION
; NUMBER OF SEQUENCES: 20
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Banner & Allegretti, LTD
; STREET: 1001 G Street, N.W., Eleventh Floor
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20001-4597
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC Compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/376,362A
 FILING DATE: 23-JAN-1995
 CLASSIFICATION: 435
 ATTORNEY/AGENT INFORMATION:
 NAME: Kagan A./Sarah
 REGISTRATION NUMBER: 32,141
 REINFORCE/DOCKET NUMBER: 01107.48125
 TELECOMMUNICATION INFORMATION:
 TELEFAX: 202-508-2100
 INFORMATION FOR SEQ ID NO: 20:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 698 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 HYPOTHETICAL: NO
 ANTI-SENSE: NO
 ORIGINAL SOURCE:
 ORGANISM: Rattus rattus
 US-08-376-362A-20

Query Match 14.7%; Score 418.5; DB 1; Length 698;
 Best Local Similarity 23.1%; Pred. No. 1.1e-32; Gaps 21;
 Matches 148; conservative 96; Mismatches 23%; Indels 161; Gaps 21;
 OTHER INFORMATION: Xaa represents 207 non-disclosed amino acids
 US-09-360-197-16

Qy 6 GPE-BARQPSD-----IRVAPNSNCMHEGLGHVFGPSISLRRGKMAAV 49
 Db 57 GPEPAPRQTEEEFALIFHRSSTRELQFFCINTTIGHAILVLCSSHNRKTTAFAW- 113
 Qy 50 VLSVATFVYQAERVRYREF-NHQTAID-ERSHRLVPPATLCLNTNPLRSRL--- 102
 Db 114 VLMWLCTPFGMMYWFALIIFBEYLSTPVSNINLNNSDKLMPAVTCLNPVRYTEKEEL 173
 Qy 103 -----TNDLHAGSALLGDPAAFAAFLALGRPPAPGFMSPPTDMAQLVARAG 154
 Db 174 ELDRTTCTLFLDLYKYNNSYTRQGARRSSRDLGAPPHFLQRUTTPPPYSGRTARS 233
 Qy 155 HS----- 156
 Db 234 SSSVBDNPQVDRDKWKGFLQCNQNKSDCFYQTYSSGVDAYREMYRHYINLBSLDT 293
 Qy 157 -----LDDMLIDCRFGQCPOPENFTTIFTRM-GRCYTNNGADAEILLTTRGGY 207
 Db 294 SPALEEEALONNFFICRQHQAOPCNQANISKFHMPGNCYTND-KNNSNLMMSSPGVN 352
 Qy 208 NGLDFMLDVQOEYELPVWDNEETPFEGYIRYQJHSOPEPPFLDQLGlySGYQFVSC 267
 Db 353 NGLSLTURTEQNDIFPL-----LSTVTGARVMVHGOBPAFDGGFLNRLPGVTSIM 406
 Qy 268 QQQQLSFLPPPGDQSSASINPNEYEPEDPLGSPSPSPSPPTLMQCLACETRYVARK 327
 Db 407 RKEALDSLGNSYDQG-----ENGSDYPVNLQYPS---KXTQQVQYIHSQFOENMK 455
 Qy 328 CGCRMVY--MPGDYVPCSPQQ-----YKNCAPAHADAILRKDSC--ACPNPCASTRY 375
 Db 456 CGCATYFPPKGVBFCDRKQSSWGXCYKLQGAFSLDSL---GCFSKCRKPCSVTINY 511
 Qy 376 AKELSMVRISRAARFLARKLNSEAYTAEN---VIALDIFFEALNYYETEQKAYEM 431
 Db 512 KLSAGYSRWSVSKSDWIFEMLSLQNNNTINNKNGVAKLNFFKEINYKONSEPSVTM 571
 Qy 432 SELLGDIGGONGLFIGASLITILELDNLCEV-----FRDKVLYFWNRHQSQR 480
 Db 572 VSLLSNLQWSLNEGSSVLSVYEMADFLVITLMLRFRSR---YWSPGRGR 627
 Qy 481 -----HSSTNLQOGLGSHSRTQVPHISGPRPPTPPAVT 515
 Db 628 GAREVASTPASSEPPSPSRCPHPTSPPP--SLPQQGMMTPPLALT 667

RESULT 14
 5196333-4
 ;Patent No. 5196333
 ;APPLICANT: CHALFIE, MARIN; WOLINSKY, EVE; DRISCOLL, MONICA

TITLE OF INVENTION: DNA SEQUENCES INVOLVED IN NEURONAL DEGENERATION, MULTICELLULAR ORGANISMS CONTAINING SAME AND USES THEREOF

NUMBER OF SEQUENCES: 11

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/07/530, 968

FILING DATE: 30-MAY-1990

SEQ ID NO: 4

LENGTH: 493

5199333-4

Query Match 12.0%; Score 342.5; DB 6; Length 493;

Best Local Similarity 27.2%; Mismatches 58; Indels 91; Gaps 14;

Matches 106; Conservative 58; Mismatches 135; Indels 91; Gaps 14;

Qy 114 LGILDPAEHAAFLRALGRPPAPPGMPSPDTFDMA-----QLYARAGHSIDDD-----159

Db 115 LGQSTPTEPDNPFLAEMG-----FQGMDTDEVAVTAKENIMFAMATLSMQDRERLST 166

Qy 160 ----MLLDERFRGPGPNC-----TTTIFRMRGKCYTENSGADAEELTTTRGMGNGLDIM 213

Db 167 TKRELVHCGSFNSKGKACD1EADFLTHIDPAGSCPTFHW-NRTVNILTSIRAGPMYGLRML 224

Qy 214 LDYQEEEYLPLWWRDNEETPFEGVIRVOIHSQEBEPPIDQLQLGIVSPYQYTFVSCQQQQLS 273

Db 225 VYNAASDMP-----TTEATGVRLTHDKDFPDTFGSAPPTGIVSSFGDLRKMS 277

Qy 274 FLPPPWGIC-----SSASLNPNEYPEPSDPLGSPSPSPSPSPPTMLMGCRLLACETRYARKC 328

Db 278 RLPAQYGDQVDPDGKTSVDSIYNSV-----YSVEGCGYRSFQQLVLRKEC 320

Qy 329 GCRMVVMGDVPCVSQPYKRNCAHPAIDLIRK-DS-----CACPAPCAST 373

Db 321 RC-----GDPRFPVPENARHC-DAADPIARKCLDARMNDLGLLHSFRCRCCQPCRQS 372

Qy 374 RYAKELSMVRIPSR-----AARFLARKLNESEAIAENVNLADIFFEALNYETVEQRK 427

Db 373 IYSVTYSFAKWPFLQIQLQGSGCTAVEMK-HYKENGAMVVEYEQVINFEMTE 429

Qy 428 AYEMSELIGDQGQMLTIGASLLTILEL 457

Db 430 AYGFVNLLADFGSQLGLWCGISFLTCCEFV 459

RESULT 15

US-07-861-458C-99

/ Sequence 99, Application US/07861458C

/ GENERAL INFORMATION:

/ APPLICANT: Marchionni, Mark Andrew

/ APPLICANT: Johnson, Carl D.

/ TITLE OF INVENTION: HOMOLOGY CLONING

/ NUMBER OF SEQUENCES: 142

/ CORRESPONDENCE ADDRESS:

/ ADDRESSEE: Fish & Richardson
STREET: 225 Franklin Street
CITY: Boston
STATE: Massachusetts
COUNTRY: U.S.A.

/ ZIP: 02110-2804

/ COMPUTER READABLE FORM:

/ MEDIUM TYPE: 3.5" Diskette, 1.44 Mb

/ COMPUTER: IBM PS/2 Model 502 or 55SX

/ OPERATING SYSTEM: MS-DOS (Version 5.0)

/ SOFTWARE: WordPerfect (Version 5.1)

/ CURRENT APPLICATION DATA:

/ APPLICATION NUMBER: US/07/861,458C

/ CLASSIFICATION: 435

/ PRIOR APPLICATION DATA:

/ FILING DATE:

/ ATTORNEY/AGENT INFORMATION:

Search completed: August 25, 2004, 13:01:25

Job time : 36 secs

Query Match 12.0%; Score 341.5; DB 3; Length 755;

Best Local Similarity 26.9%; Pred. No. 6.1e-25;

Matches 105; Conservative 61; Mismatches 133; Indels 91; Gaps 14;

Qy 114 LGILDPAEHAAFLRALGRPPAPPGMPSPTEFDA-----QLYARAGHSIDDD-----159

Db 377 LGQGTTEDDPNFEAMG-----FQMTDEAIVYKAKENIMFANATLSQDRERLST 428

Qy 160 ----MLLDERFRGPGP-----OPENFTTIFRMGKCYTENSGADAEELTTTRGMGNGLDIM 213

Db 429 TKRELVHCGSFNSKGKACD1EADFLTHIDPAGSCPTFHW-NRTVNILTSIRAGPMYGLRML 486

Qy 214 LDYQEEEYLPLWWRDNEETPFEGVIRVOIHSQEBEPPIDQLQLGIVSPYQYTFVSCQQQQLS 273

Db 487 VYNASDYNP-----TEATGVRLTHDKDFPDTFGSAPTYVSSFGLRLRKMS 539

Qy 274 FLPPWGDC-----SSASLNPNEYPEPSDPLGSPSPSPSPPTMLGGRLACETRYARKC 328

Db 540 RLPAQYGDQVDPDGKTSVDSIYNSV-----YSVEGCGYRSFQQLVLRKEC 582

Qy 329 GCRMVVMGDVPCVSQPYKRNCAHPAIDLIRK-----CACPAPCAST 373

Db 583 RC-----GDPGFPVPBGARHCA-PA DPVARRSLDARMNDLGLLHSFRYRCQQPCSQS 634

Qy 374 RYAKELSMVRIPSR-----AARFLARKLNESEAIAENVNLADIFFEALNYETVEQRK 427

Db 635 IYSVTYSFAKWPFLQIQLQGSGCTAVEMK-HYKENGAMVVEYEQVINFEMTE 691

Qy 428 AYEMSELIGDQGQMLTIGASLLTILEL 457

Db 692 AYGFVNLLADFGSQLGLWCGISFLTCCEFV 721